



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,476	06/24/2003	Nagesh R. Basavanhally	Basavanhally 31-3	2680

46850 7590 03/03/2010
MENDELSON, DRUCKER, & ASSOCIATES, P.C.
1500 JOHN F. KENNEDY BLVD., SUITE 405
PHILADELPHIA, PA 19102

EXAMINER

CHIEM, DINH D

ART UNIT	PAPER NUMBER
----------	--------------

2883

MAIL DATE	DELIVERY MODE
-----------	---------------

03/03/2010

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/602,476	Applicant(s) BASAVANHALLY ET AL.	
	Examiner ERIN D. CHIEM	Art Unit 2883	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9,11,12,15-18,22,23 and 29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-9,11,12,15,16,22 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 17,18 and 23 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This office action is in response to the amendment filed on October 12, 2009. Claim 1, 3-9, 11-12, 15-18, 22-23, and 29 are pending. The current amendment overcame the objections to claim 13, 27 and 28 and also the rejection of claim 25 under 35 USC 112, second paragraph. Accordingly, the objections and rejections made to these claims are withdrawn.

Election/Restrictions

Newly submitted claims 12, 17 directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: The originally examined claim 17 is drawn to an optical arrangement comprising an optical filter and a device mounted onto a side of the fiber and optically coupled to the fiber, wherein the filter is configured to direct light corresponding to the optical device between the fiber and the optical device. This species is consistent with the examined device of claim 1. However, the amended limitation of an FPI is a separate species from the originally examined sensing device of claim 1. Therefore, claim 18 and 23 are also subsequently withdrawn on the merit of being dependent on claim 17.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 17, 18, and 23 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 1, 3, 6-7, 9, 11, 15-16 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lubbers et al. (US Patent 5,353,792) in view of Crothall (US Patent.6,049,727).

Regarding claim 1 and 29, Lubbers discloses a sensing system comprising: a first sensor mounted onto a side of an optical fiber and optically coupled to said fiber (Fig. 8 element 3), wherein, the first sensor is one of a plurality of sensors (Fig. 8 , element 4), in which each sensor is optically coupled to the fiber; and when interrogated with light coupled into the fiber (Fig. 1), the first sensor generates an optical response corresponding to a first value of a first physical parameter to provide a measure of the first value; a first optical filter inserted into the fiber (Fig. 8 element 20), wherein the first filter is adapted to direct light corresponding to the first sensor between the fiber and the first sensor; and an interrogation device optically coupled to the optical fiber, wherein the interrogation (Col. 5, lines 13-24) also shown in Figure 1 as the rectangular box labeled '7' Regarding the limitation—*a plurality of optical receivers, each adapted to receive a respective optical component of the plurality of optical components*--is taught by Lubbers. Lubbers utilize dichroic mirrors, which examiner considers as optical receivers, monitoring several indicators simultaneously (col. 5, lines 13-19).

Art Unit: 2883

However, Lubbers does not explicitly teach the interrogation device comprises:

- A plurality of light sources each adapted to generate light for optically interrogating a respective sensor and the plurality of sensors:
- An optical multiplexer/demultiplexer,

Crothall teaches an implantable sensor and system for in vivo measurement and control of fluid constituent levels wherein Crothall discloses the interrogation device (Fig. 1) comprises light source 12 which is made up of a laser diode array which has a plurality of individual laser diodes emitting discrete wavelength. The interrogation device disclosed by Crothall is an external unit which would be optically integrally coupled as similar to Lubbers's interrogation device.

It would have been obvious to one having ordinary skill in the art to recognize the interrogating device disclosed by Crothall would be modifiable in Lubber's invention since both are in the same field of endeavor. **The motivation** would have been to provide controlled intensity and/or independent wavelengths for a predetermined design of the sensing system.

Claim 3, the filter 20 shown is aligned with the first sensor and oriented at about 45 degrees with respect to the longitudinal axis of the fiber.

Claim 6, a second sensor (4) optically coupled to the fiber. Regarding the limitation--*wherein the first filter is designed to be substantially transparent to light corresponding to the second sensor*--is not given patentable weight since this is a method of use of the device and since Lubbers teaches the structure of the first (3) and second (4) sensor having a first (20) and second (20) arranged correspondingly, the examiner considers the limitation of claim 4 is anticipated by Lubbers.

Art Unit: 2883

Regarding claims 7-8, the functional limitations in the instant claim is not given patentable weight in a device claim wherein the function is not further limited by structure. However, Lubbers does teach the device can detect pressure and temperature (col.2 , lines 62-65).

Claim 9 is anticipated by Lubbers since column 5, lines 13-24 teaches a specific parameter (e.g., single wavelength, hence monochromatic!) is returned to the control system (7).

Claim 11 is anticipated by Lubbers as shown in Fig. 1 and 8. The external tube (6) and the internal tube (2) supports the fiber (22) constitutes the housing of the catheter. Regarding the limitation wherein the first sensing parameter is pressure and the catheter is adapted to be used within a blood vessel is not given patentable weight since these are method of using the device since Lubbers anticipated the structures which are capable of performing these various functions.

Claims 15 and 16 is not given patentable weight since applicant is claiming the method of using the device; the examiner would like to note that an optical sensor can be tuned to any predetermined parameter such as pressure, temperature etc. Furthermore, multiple sensors would not be provided to measure the same parameter in a sensor such a catheter since the real estate of the sensor is too valuable for redundancy.

Response to Arguments

Applicant's arguments with respect to claims 1, 3-9, 11-12, 15-18, 22-23 and 29 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Art Unit: 2883

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erin D. Chiem whose telephone number is (571) 272-3102. The examiner can normally be reached on Monday - Thursday 9AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on (571) 272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Erin D Chiem/
Examiner, Art Unit 2883
CP/edc

/CHARLIE PENG/
Primary Examiner, Art Unit 2883